

## REMARKS

Claims 1-5, 8-11, 13, 15-21 and 23 have been amended to correct formality errors and to more clearly define the invention.

Support for the claim amendments is found in the existing claims and in the Application description in connection with Figures 1-3. Specifically, support for the global parameter and concurrent operation limitations is found on page 5 lines 12-28, page 13 lines 9-26 and other places.

*I. Rejection under 35 U.S.C. 102(e)*

Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application 20040122701 – Dahlin et al. These claims, as amended, are deemed to be patentable for the reasons given below.

Amended claim 1 recites in “a system for scheduling a set of tasks to be performed by at least one individual to support healthcare delivery”, a “method for providing a user interface for processing an event representing a change in circumstances potentially affecting healthcare delivered to a patient” comprising the steps of “in response to user command, initiating generation of at least one display image supporting a user in, identifying an event and an associated parameter; identifying a global parameter; designating a predetermined first process is associated with said event by associating identifiers with said event and said associated parameter, said predetermined process comprising a set of tasks to be performed by at least one individual to support healthcare delivery; designating a plurality of predetermined concurrently operable processes, including said first process, are associated with said identified global parameter for concurrently automatically sharing a value of said global parameter; and indicating a value of said associated parameter is to be provided to said first process in response to occurrence of said event; enabling access by said predetermined concurrently operable processes and sharing of said global parameter value; and providing said associated parameter to said first process using a map in at least one repository associating event identifiers and parameter identifiers”. These features are not shown (or suggested) in Dahlin.

The system of claim 1 provides “at least one display image” for “designating a plurality of predetermined concurrently operable processes, including said first process, are associated with said identified global parameter for concurrently

automatically sharing a value of said global parameter; and indicating said associated parameter is to be provided to said first process in response to occurrence of said event". The system of claim 1 also enables "access by said predetermined concurrently operable processes and sharing of said global parameter value" and provides "said associated parameter to said first process using a map in at least one repository associating event identifiers and parameter identifiers". These features address the fact that "real healthcare processes constantly affect each other. For example, a patient being taken to radiology for a diagnostic study interferes with the administration of intravenous medication in the patient's room. Further, the complexity of modern healthcare enterprises means that a healthcare workflow process may need to be responsive to multiple different healthcare events, and also that a single event may impact multiple different concurrently operating healthcare processes". Further, the inventors have advantageously recognized "a more sophisticated mechanism is required for invoking workflow processes than existing workflow management systems currently support. The disclosed system supports creation and configuration of healthcare processes that interact with each other and respond to changes and events originating in other processes" (Application page 5 lines 12-28).

The claimed arrangement provides a display image enabling a user to designate "a plurality of predetermined concurrently operable processes, including" a "first process, are associated" with a "global parameter for concurrently automatically sharing a value of said global parameter". The arrangement also indicates an additional "associated parameter is to be provided" to the "first process in response to occurrence" of an "event" using "a map in at least one repository associating event identifiers and parameter identifiers". These features support management of concurrently operable workflows. Dahlin does not address this problem or provide any 35 USC 112 compliant disclosure of sharing global parameters between concurrently operating processes in addition to receiving a process-specific parameter in response to occurrence of an event using a map associating event identifiers and parameter identifiers.

Dahlin discloses use of "Disease Management Advisors" comprising organizations or clinicians, specifically "disease management advisors may include specialized disease management advising companies, pharmacies, insurance companies, HMOs, government agencies, medical professional societies, medical specialists, experts in particular fields of medicine, pharmacy benefits management companies, advertisers, pharmacies, labs, academic organizations, medical

information publishers, research institutions, organizers of medical studies, organizers of medication trials” (Dahlin par. 0010). These “Disease Management Advisors” employ “treatment algorithms” which may comprise paper copies, for example, of “step therapy, diagnosis algorithms, treatment algorithms, decision criteria for ordering certain tests” (Dahlin para. 0008, 0010). However, Dahlin nowhere shows or suggests designating that “a plurality of predetermined concurrently operable processes, including” a “first process, are associated” with a “global parameter for concurrently automatically sharing a value of said global parameter”.

Dahlin states in par. 0074 “each treatment algorithm is associated with a particular DMA, and the healthcare EMR system **only** considers treatment algorithms indicated by the patient's own DMA and **ignores others**”. Dahlin states in par. 0075, 0076 “some treatment algorithms' DMA fields may be set to the special value ALL, which indicates that they may be relevant to a patient regardless of the patient's DMA” and “some patients may have multiple DMAs and some treatment algorithms may be associated with multiple DMAs”. However, treatment algorithms comprise (perhaps in paper copy form) “step therapy, diagnosis algorithms, treatment algorithms, decision criteria for ordering certain tests” (Dahlin par. 0008, 0010). So “treatment algorithms” are treatment templates of questions or activities to be performed in treatment of a patient and are NOT parameters or parameter values and do not suggest a “value” of a “global parameter” shared between “predetermined concurrently operable processes”. Dahlin fails to provide any 35 USC 112 compliant teaching of enabling different concurrently active templates of questions or activities to be performed in treatment of a patient (“treatment algorithms”) to exchange parameter values. Dahlin fails to recognize a need for such features and in par 0077-0082 or elsewhere fails to show or suggest such features. Dahlin also fails to show or suggest providing “said associated parameter to said first process using a map in at least one repository associating event identifiers and parameter identifiers” in addition to sharing global parameter values.

Dahlin states in par. 0079 referring to a treatment algorithm that “likewise, a set of elements may specify conditions and locations that refer to one another in order to create a logical flow **between treatment algorithm elements** (e.g., if user answers X then ask Y)”. However, here Dahlin is referring to a **single** treatment algorithm and the fact that a patient answer provided to the single algorithm may change questions presented by the **single** algorithm. There is no suggestion in Dahlin in para. 0077-0082 or elsewhere of treatment algorithms sharing a common “parameter value”. Consequently withdrawal of the Rejection of claim 1 under 35

USC 102(e) is respectfully requested.

Amended dependent claim 2 is considered to be patentable based on its dependence on claim 1. Claim 2 is also considered to be patentable because Dahlin does not show (or suggest) a system involving “filtering messages identifying events using said map to exclude messages conveying event identifiers unassociated with said predetermined first process from being passed to said process, wherein said at least one display image supports designating an executable procedure, for initiating a workflow process comprising a sequence of tasks to be performed by a worker or system, is associated with said event and wherein execution of said procedure is initiated in response to occurrence of said event”. Dahlin does not show or suggest “filtering messages identifying events using said map to exclude messages conveying event identifiers unassociated with said predetermined first process from being passed to said process”. Dahlin does not mention such a filter at all and there is no 35 USC 112 compliant teaching in Dahlin of this feature combination.

Amended dependent claim 3 is considered to be patentable based on its dependence on claim 1. Claim 3 is also considered to be patentable because Dahlin does not show (or suggest) a system in which the “at least one display image supports designating a **second process**, comprising a scheduled sequence of tasks to be performed by at least one individual to support healthcare delivery, is associated with said event and determining said second process is to be at least one of, (a) **replaced** and (b) **supplemented**, by said predetermined process in response to occurrence of said event”. Par. 0090 of Dahlin relied on merely discusses topics and questions that may be used by a treatment algorithm and nowhere shows or suggests “designating a **second process**, comprising a scheduled sequence of tasks to be performed by at least one individual to support healthcare delivery, is associated with said event and determining said second process is to be at least one of, (a) **replaced** and (b) **supplemented**, by said predetermined process in response to occurrence of said event”.

Amended dependent claim 4 is considered to be patentable based on its dependence on claims 1 and 3. Claim 4 is also considered to be patentable because Dahlin does not show (or suggest) a system in which the “second process is supplemented by said predetermined first process by at least one of the steps of, (a) adding said tasks of said predetermined first process to tasks of said second process, and (b) substituting at least one of said tasks of said predetermined process for a task of said second process”. Contrary to the Rejection statement on page 4, Dahlin in para

0088, 0090 or elsewhere merely discusses topics and questions that may be used by a treatment algorithm and nowhere shows or suggests this feature combination.

Amended dependent claim 5 is considered to be patentable based on its dependence on claim 1. Claim 5 is also considered to be patentable because Dahlin does not show (or suggest) a system involving “designating a second process is to be at least one of, (a) replaced and (b) supplemented, by said predetermined first process in response to occurrence of said event, said second process comprising a scheduled sequence of tasks to be performed by at least one individual to support healthcare delivery and is different to said predetermined first process sequence of tasks”. Contrary to the Rejection statement on page 4, Dahlin in para 0088-0090 relied on merely discusses topics and questions that may be used by a treatment algorithm and nowhere shows or suggests the claimed arrangement.

Dependent claim 6 is considered to be patentable based on its dependence on claim 1. Claim 6 is also considered to be patentable because Dahlin does not show (or suggest) a “display image” that supports “designating predetermined parameter verification criteria is associated with said associated parameter”. Contrary to the Rejection statement on page 6, Dahlin in para 0079-0080 or elsewhere nowhere shows or suggests associating “parameter verification criteria” for validating an “identified **parameter**” to “be **provided to said process** in response to occurrence of said event”. This feature facilitates user configuration, via a display image, of a workflow process to dynamically adapt in response to other concurrent workflow processes by (during process operation) receiving medical parameters from other concurrently operating workflow processes. As exemplified in the Application on page 9 lines 27-34, the arrangement enables “a pharmacy order for Gentamicin IV” to “be used to initiate an aminoglycoside infusion process” by passing to the infusion process “parameters such as the patient’s identifier number (PTID) 612, dose (for example, 1 ml or 2 tablets) 620, time (for example, every 8 hours) 618, route (for example, intravenous) 616, and strength (for example, 80 mg/ml or 500 mg) 614 are selected via prompt element 611 which also indicates the corresponding identification label employed by the workflow process”. These features are nowhere shown or suggested in Dahlin.

Dependent claim 7 is considered to be patentable based on its dependence on claims 1 and 6. Claim 7 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said designated predetermined parameter verification criteria comprises at least one of, (a) a value range (b) a value

type and (c) a parameter symbol check”. The Rejection on page 5 recognizes that Dahlin fails to show such features but states that “this is well known in the art citing par. 0079-0080 of Dahlin. The sections relied on do not show or suggest such features and Dahlin nowhere mentions “parameter verification criteria” at all and certainly not criteria comprising “at least one of, (a) a value range (b) a value type and (c) a parameter symbol check” is “associated with said associated parameter”.

Amended dependent claim 8 is considered to be patentable based on its dependence on claim 1. Claim 8 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said associated parameter is for use by multiple different process task sequences and is stored at a location available for access by said multiple different process task sequences”. Dahlin in par. 0077-0082 relied on or elsewhere, does not show or suggest this feature combination. As previously explained, there is no teaching in Dahlin indicating the Dahlin treatment algorithms exchange parameter values. Dahlin states in par. 0074 “each treatment algorithm is associated with a particular DMA, and the healthcare EMR system **only** considers treatment algorithms indicated by the patient's own DMA and **ignores others**”. Further treatment algorithms comprise “step therapy, diagnosis algorithms, treatment algorithms, decision criteria for ordering certain tests” (Dahlin par. 0008, 0010). So “treatment algorithms” are treatment templates of questions or activities to be performed in treatment of a patient and Dahlin fails to provide any teaching indicating different concurrently active treatment algorithms exchange parameter values. Further Dahlin “treatment algorithms” are NOT parameters or parameter values and do not suggest a “value” of a “global parameter” shared between “predetermined concurrently operable processes”.

Dependent claim 9 is considered to be patentable based on its dependence on claim 1. Claim 9 is also considered to be patentable because Dahlin does not show (or suggest) a system involving “designating said predetermined process is associated with said identified event comprises designating an instance of said predetermined process is associated with said identified event”. Dahlin in para 0078 relied on or elsewhere nowhere even mentions an “instance” of a process and certainly fails to suggest “designating an instance of said predetermined process is associated with said identified event”.

Dependent claim 10 is considered to be patentable based on its dependence on claim 1. Claim 10 is also considered to be patentable because Dahlin does not show (or suggest) a system involving “searching a database containing

records indicating active processes to identify active process instances of said predetermined process”. Dahlin in para. 0050 nowhere shows or suggests this feature combination and fails to even mention a process “instance”. A process “instance” is a “copy of a workflow process and may comprise a particular use of the process for a specific patient, for example” (Application page 11 lines 12-14).

Dependent claim 11 is considered to be patentable based on its dependence on claim 1.

Dependent claim 12 is considered to be patentable based on its dependence on claim 1. Claim 12 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said event comprises at least one of, (a) an event resulting from action by healthcare personnel, (b) an event generated by an operating process, (c) an event generated by patient monitoring equipment and (d) an event generated by a medical device”. Dahlin in par. 0057 nowhere shows or suggests this feature combination.

Dependent claim 13 is considered to be patentable based on its dependence on claim 1. Claim 13 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said display image indicates to a user a **mapping of a first label** representing said **event** associated parameter used by said predetermined process to a **corresponding second label** representing said associated **parameter** used by a **second process replaceable** by said predetermined process upon occurrence of said event”. Dahlin in para. 0077-0082 nowhere shows or suggests this feature combination. Dahlin does not even mention a “label”.

Dependent claim 14 is considered to be patentable based on its dependence on claims 1 and 13. Claim 14 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said first label is different from said second label”. Dahlin does not even mention a “label”.

Dependent claim 15 is considered to be patentable based on its dependence on claim 1.

Dependent claim 16 is considered to be patentable based on its dependence on claims 1 and 15. Claim 16 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said at least one display image supports user designation of a particular individual task of said individual tasks and

said predetermined process is initiated from said user designated particular individual task upon occurrence of said event”. Dahlin in para 0077-0082 or elsewhere fails to show or suggest such features. This combination enables a user via a “display image” to designate that a “**predetermined process is initiated from said user designated particular individual task upon occurrence of said event**”. Thereby a user can create a workflow process in which a task of one process is able to dynamically initiate a second process in response to an event. This feature combination is nowhere shown or suggested in para. 0077-0082 or elsewhere in Dahlin.

Dependent claim 17 is considered to be patentable based on its dependence on claims 1, 15 and 16. Claim 17 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “upon occurrence of said event, said predetermined process omits at least one task prior to said designated particular individual task”. This feature combination enables a user to create a workflow process in which a task of one process is able to dynamically initiate a second process and **omit** “at least one task prior to said **designated** particular individual task” in response to an event. This feature combination is nowhere shown or suggested in para. 0077-0082 or elsewhere in Dahlin.

Amended independent claim 18 recites a method for “providing a user interface for processing an event representing a change in circumstances potentially affecting healthcare delivered to a patient” comprising “in response to user command, initiating generation of at least one display image supporting a user in, identifying a first event and an associated global parameter, said associated global parameter being for use by multiple different process task sequences and stored at a location available for access by said multiple different process task sequences; identifying a second event and an associated process specific parameter; designating a predetermined first process is associated with said first event and second event by associating identifiers with said first event, second event and said associated global and process specific parameters, said predetermined first process comprising a set of tasks to be performed by at least one individual to support healthcare delivery; and designating said global and process specific parameter values are to be automatically provided to said first process in response to occurrence of said first event and said second event, respectively; providing said global and process specific parameter values to said first process using a map in at least one repository associating event identifiers and parameter identifiers; and filtering messages identifying events using said map to exclude messages conveying event identifiers unassociated with said predetermined first process from being passed to said first process”. These features are not shown (or



suggested) in Dahlin.

Amended independent claim 18 is considered to be patentable for reasons given in connection with claims 1 and 2 and for other reasons.

Dependent claim 19 is considered to be patentable based on its dependence on claim 18 for reasons given in connection with claims 1, 2 and 9.

Dependent claim 20 is considered to be patentable based on its dependence on claim 18 for reasons given in connection with claims 1, 2 and 9. Claim 20 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said particular instance of said predetermined process comprises a particular use of said predetermined process for a specific patient”. This feature combination is nowhere shown or suggested in Dahlin.

Amended independent claim 21 recites a method for “providing a user interface for processing an event representing a change in circumstances potentially affecting healthcare delivered to a patient” comprising “in response to user command, initiating generation of at least one display image supporting a user in, identifying an event potentially arising during a first process; identifying a parameter associated with said event; designating a second process is associated with said event by associating identifiers with said event and said parameter, said first and second processes comprising sets of concurrently active tasks to be performed by at least one individual to support healthcare delivery; and designating a value of said parameter is to be provided from said first process to said second process in response to occurrence of said event; providing said parameter value to said process using a map in at least one repository associating event identifiers and parameter identifiers; and filtering messages identifying events using said map to exclude messages conveying event identifiers unassociated with said predetermined first process from being passed to said process”. These features are not shown (or suggested) in Dahlin.

Amended independent claim 21 is considered to be patentable for reasons given in connection with claims 1 and 2. Claim 21 is also considered to be patentable because Dahlin does not show or suggest “designating a **value**” of a “parameter” to be automatically provided from” a “**first process**” to a “**second process**” “comprising sets of **concurrently active** tasks to be performed by at least one individual to support healthcare delivery” in “response to occurrence of said event”. As previously explained the Dahlin “treatment algorithms” are treatment

templates of questions or activities to be performed in treatment of a patient and are NOT parameters or parameter values and do not suggest a “value” of a “global parameter” shared between “predetermined concurrently operable processes”. Specifically, treatment algorithms comprise “step therapy, diagnosis algorithms, treatment algorithms, decision criteria for ordering certain tests” (Dahlin par. 0008, 0010). Dahlin fails to provide any 35 USC 112 compliant teaching of enabling different concurrently active templates of questions or activities to be performed in treatment of a patient (“treatment algorithms”) to exchange parameter values. Dahlin fails to recognize a need for such features and in par 0077-0082 or elsewhere fails to show or suggest such features. This is corroborated in Dahlin which states in par. 0074 “each treatment algorithm is associated with a particular DMA, and the healthcare EMR system **only** considers treatment algorithms indicated by the patient's own DMA and **ignores others**”. Dahlin nowhere shows or suggest designating a **value** of” a parameter is to be “automatically” provided from” a “**first process**” to a “**second process**” that are “**concurrently active** tasks to be performed by at least one individual to support healthcare delivery” in “response to occurrence of said event”.

Dahlin also fails to show or suggest “providing said parameter value to said process using a **map** in at least one repository associating **event** identifiers and **parameter** identifiers” and “**filtering** messages identifying events using **said map** to **exclude** messages conveying event identifiers unassociated with said predetermined first process from being passed to said process”. These features advantageously address managing transaction message workload without over-burdening the system to ensure relevant messages are passed to a workflow process. Dahlin fails to recognize this problem or provide any 35 USC 112 compliant enabling description of such features.

Dependent claim 22 is considered to be patentable based on its dependence on claim 21 for reasons given in connection with claims 1, 2 and 3.

Amended dependent claim 23 is considered to be patentable based on its dependence on claim 21 for reasons given in connection with claims 1, 2, 3 and 9.

Dependent claim 24 is considered to be patentable based on its dependence on claim 21 for reasons given in connection with claims 1 and 2. Claim 24 is also considered to be patentable because Dahlin does not show (or suggest) a system in which “said associated parameter is for use by **multiple** different process task sequences and is stored at a location available for access by said multiple

different process task sequences". This feature supports a user in designating a globally available patient parameter to be provided to multiple different concurrently operating workflow task sequences, for example, upon occurrence of an event. This feature combination is nowhere shown or suggested in Dahlin.

Consequently withdrawal of the Rejection of claims 1-24 is respectfully requested.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,



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